

REMARKS

Claims 1-20 are pending in the instant application. At the outset, Applicant gratefully acknowledges the indication of allowable subject matter in claims 2, 4, 6, 9, 11, 13 and 17, and the allowance of claims 7, 14-15 and 18-20. In the Office Action, claims 1, 5, 7-8, 12 and 16 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,233,347 to Chen, et al. (hereinafter, "Chen"). Claims 3 and 10 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Chen in view of U.S. Patent No. 6,757,405 to Muratani, et al. (hereinafter, "Muratani"). Claims 2, 7, 9, 11, 13 and 17 are objected to for minor informalities. Applicant kindly requests clarification as to the status of claim 7, as it is both rejected and allowed in the most recent Office Action.

As amended above, the claims have been corrected for both the informalities noted and another minor editorial oversight. Notably, in claims 2 and 9 the phrase "when inserted" has been replaced by --upon insertion--. These amendments are editorial in nature only, and should not be interpreted to, nor do they, alter the scope of the claims from that originally presented. No new matter has been added. Favorable reconsideration and withdrawal of the objection is kindly requested.

Turning to the merits of the rejections, Applicant respectfully traverses the rejections, for at least the following reasons. Claim 1 recites an apparatus comprising, *inter alia*, an electronic watermark pattern inserter for inserting previously generated key information pattern or patterns into a picture or pictures into which said electronic watermark pattern or patterns have been inserted. Claim 8 recites a method comprising, *inter alia*, inserting the previously provided key information pattern or patterns into a picture or pictures, into which an electronic watermark pattern or patterns have been inserted. The Office Action applies Chen, averring that the

watermark signal (102) corresponds to the claimed key information pattern and apparently averring that the pre-processor (109) corresponds to the picture having a watermark signal already inserted. Applicant respectfully disagrees.

More specifically, the Office Action states "Examiner considers the act of encoding as embedding key information into a host signal or watermark signal; transforming also means modification of the original watermark signal. Therefore, embedding information into a watermark signal where the Examiner considers such watermark signal as a host signal." (Office Action, p. 3)

In the first instance, Chen specifically discloses a single process of watermark embossing, performed by system 110A. Where Chen intended to describe the insertion of information into the host signal, i.e. watermarking, it did so clearly. It would be improper and merely speculative to interpret disparate elements of Chen as being the equivalent of what is explicitly described elsewhere.

Further, there is no support for the Examiner's assumption that encoding includes the embedding of key information, or in fact any information. For example, Webster's dictionary defines encode as "to convert (as information) from one system of communication into another"¹ There is nothing implicit or inherent about conversion from one form to another that mandates the insertion of additional information. Therefore, there is a clear technical, and patentable distinction between an encoded signal, disclosed by Chen, and information into which an electronic watermark pattern or patterns have been inserted, as recited in the claim.

It has been held by the court that "A prior art reference anticipates a claim only if the reference discloses, either expressly or inherently, every limitation of the claim." *Rowe v. Dror*,

¹ See, Merriam-Webster Online Dictionary, <http://www.m-w.com/cgi-bin/dictionary?encode>

112 F. 3d 473, 42 USPQ2d 1550 (Fed. Cir. 1997). However, “[The Office] may not... resort to speculation, unfounded assumptions, or hindsight reconstruction to support deficiencies in its factual basis.” *In re GPAC, Inc.*, 57 F.3d 1573, 35 USPQ2d 1116, 1123 (Fed. Cir. 1995).

Therefore, Applicant respectfully submits that claims 1 and 8 are patentably distinguished over Chen, and kindly request that the rejection be reconsidered and withdrawn.

Claim 3 depends from claim 1. The rejection of claim 3 relies upon the interpretation of Chen as applied to claim 1, already obviated above. The Office Action admits that Chen offers no teaching or suggestion of analyzing an input picture for determining the insertion strength of an electronic watermark pattern. The Office Action cites Muratani as allegedly supplying these features. However, even presuming that one of ordinary skill in the art would be motivated to combine the references, neither Chen nor Muratani, taken alone or in any combination, offer any teaching or suggestion to ameliorate the deficiencies of Chen alone with respect to the underlying independent claims. It has been held by the courts that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Therefore, Applicant respectfully submits that claims 3 and 10 are patentably distinguished over the applied references. Favorable reconsideration and withdrawal of the rejection is kindly requested.

Claim 10 depends from claim 7. The rejection of claim 10 over Chen as applied to claim 7 in view of Muratani is inconsistent with the indication of allowance of claim 7. Claim 10 is separately patentable, but is offered as patentable for at least the same reasons as underlying independent base claim 7. Favorable reconsideration and withdrawal of the rejection is kindly requested.

Turning to the rejection of claims 5, 12 and 16, the Office Action states "Chen... describe[s] 'watermark signal' as a signal to be embedded in a host signal... extractor detects the composite signal that includes watermark pattern and key information and synchronize the signal for extracting the information and reconstruction of the signals and where the extractor is a means to determine the parameter closest to host signal and then reconstruct the watermark signal that corresponds to watermarks pattern." (Office Action, pp. 3-4).

Claims 5, 12 and 16 each recite, *inter alia*, detecting a key information pattern or patterns inserted into said data of the picture along with an electronic watermark pattern or patterns. Again, Chen teaches only the extraction and reconstruction of a single watermark signal, not the detection of a key information pattern. The Office Action apparently conflates the watermark signal and the key information pattern, which are distinct. Applicant finds no reference or suggestion in Chen of a key information pattern that the Office Action attributes to the reference in several places. The Office Action is erroneous in asserting that the composite signal includes a watermark pattern and key information [pattern]. There is no teaching or suggestion in Chen that the received composite signal includes both a watermark signal and a key information pattern.

In contrast to the claimed invention, Chen teaches that to extract the watermark, reconstruction replicates embedding values by examining a portion of the signal, or application embedding values received *a priori*. Chen does not teach detecting key information patterns, nor detecting the watermark pattern based on parameters derived from such key information patterns. This is most clear with reference to the complementary embedding method and apparatus, where it has already been shown that Chen does not teach key information pattern embedding at all.

Therefore, Applicant respectfully submits that claims 5, 12 and 16 are each patentably distinguished over Chen. See, *Rowe, supra*. Favorable reconsideration and withdrawal of the rejections is kindly requested.

In the interest of brevity, Applicant has addressed only so much of the rejection(s) as is considered sufficient to demonstrate the patentability of the claim(s). Applicant's failure to address any part of the rejection should not be construed as acquiescence in the propriety of such portions not addressed. Applicant maintains that the claims are patentable for reasons other than these specifically discussed, *supra*.

In light of the foregoing, Applicant respectfully submits that all claims recite patentable subject matter, and kindly solicits an early indication of allowability of all claims. If the Examiner has any reservation in allowing the claims, and believes that a telephone interview would advance prosecution, they are kindly requested to telephone the undersigned at an earliest convenience.

Respectfully submitted,



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